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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MCGUIREWOODS, LLP
1750 TYSONS BLVD
SUITE 1800
MCLEAN, VA 22102

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
2674	8

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,523

Applicant(s)

KWAG, JIN-OH

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 01/26/2004 is entered. The rejections of claims 1-3, 5, 7-26 are maintained.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the a second interval comprises a present gate line through a second thin film transistor, a data line comprises a first data voltage and a second data voltage must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3, 5, 7-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. As to claims 1, 5, they are not clear what the Applicant means

[recited in lines 112-13 of claim 1]

a first interval comprises a subsequent gate line through a first thin film transistor

[recited in lines 15-16 of claim 1]

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a second interval comprises a present gate line through a second thin film transistor
[recited in lines 16-18 of claim 1]

a third interval following the second interval and having the same polarity as a polarity of the data voltage

In contrast, Fig. 5, page 12, lines 10-14, the specification only discloses
“a gate voltage such as (a) applied to a previous gate line (n-1) is applied when a data voltage, which is applied via a thin film transistor that is connected to the previous gate line (n-1), is of a positive polarity. Further, a gate voltage such as (d) applied to an n gate line is applied when a data voltage, which is applied via a thin film transistor that is connected to the n gate line, is of a negative polarity.”

These limitations contain various inconsistencies and/or ambiguities so that the Examiner is unable to understand how a second interval comprises a present gate line through a second thin film transistor.

How a third interval following the second interval and having the same polarity as a polarity of the data voltage

4. As to claim 15, they are not clear what the Applicant means

[recited in line 3 of claim 15]

a data line transmitting a first data voltage and a second data voltage

[recited in lines 6-7 of claim 15]

a second switching element connected to the second gate line and the data line and selectively transmitting the second data voltage

[recited in lines 14-5 of claim 15]

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wherein the gate signal has first to fourth voltages during sequentially arranged first to fourth time intervals, respectively

In contrast, Fig. 2 only shows a power supply 50 connecting to a data driver 30. Fig. 3 only shows one pixel having one TFT being driven by previous line Gn-1, Gn and data line d.

The drawings must show every feature of the invention specified in the claims. Therefore, the a second interval comprises a present gate line through a second thin film transistor, a data line comprises a first data voltage and a second data voltage must be shown or the feature(s) canceled from the claim(s).

5. As to claim 25, they are not clear what the Applicant means

[recited in lines 17-18 of claim 25]

the first and the second switching element turn on by the first voltage and turn off by the second voltage

[recited in lines 19-20 of claim 25]

a polarity of the third voltage is the same as a polarity of the data voltage

In contrast, Fig. 2 only shows a power supply 50 connecting to a data driver 30. Fig. 3 only shows one pixel having one TFT being driven by previous line Gn-1, Gn and data line d.

Fig. 5, page 12, lines 10-14, the specification only discloses "a gate voltage such as (a) applied to a previous gate line (n-1) is applied when a data voltage, which is applied via a thin film transistor that is connected to the previous gate line (n-1), is of a positive polarity. Further, a gate voltage such as (d) applied to an n

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gate line is applied when a data voltage, which is applied via a thin film transistor that is connected to the n gate line, is of a negative polarity."

These limitations contain various inconsistencies and/or ambiguities so that the Examiner is unable to understand how the first and the second switching element turn on by the first voltage and turn off by the second voltage.

How a polarity of the third voltage is the same as a polarity of the data voltage.

Response to Arguments

6. Applicant's arguments filed 01/26/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that claims 1 and 5 recites in lines 10-18 of claim 1. This argument is not persuasive because the rejection under 35 U.S.C. 112, second paragraph was made above.

For these reasons, the rejections based on 35 U.S.C. 112, second paragraph have been maintained.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
April 14, 2004



XIAO WU
PRIMARY EXAMINER